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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,894	03/23/2001	Susan Michalowski	5051.401XXDV	7515

20792 7590 03/04/2003

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EXAMINER

SAKELARIS, SALLY A

ART UNIT	PAPER NUMBER
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1634

DATE MAILED: 03/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,894

Applicant(s)

MICHALOWSKI ET AL.

Examiner

Sally A Sakelaris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

If applicant desires priority under 35 U.S.C. 120 based upon a previously filed application, specific reference to the earlier filed application must be made in the instant application. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph unless it appears in an application data sheet. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. ____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

It is noted that applicants attempted to clarify their priority being claimed in the Preliminary amendment it is suggested however that Applicants further amend the first line of the specification to clarify the relationship between the present application and the parent and provisional application, for example: "The present application is a divisional of 09/122,400, filed 24 July 1998 now US Patent No. 6,245,974, which claims the benefit of priority under 119(e) to 60/066,118, filed 6 August 1997".

Election/Restrictions

Applicant's election of Group II, claims 20 and 21 in Paper No. 11 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the

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restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Levy-Wilson et al.(Journal of Biological Chemistry, 1989).

The reference teaches experimental procedures used to localize and thereby identify, Matrix Attachment Sites along the apoB gene. The reference's results demonstrate that the 5' and 3' boundaries of the 47.5 kb apoB gene can be defined by two nuclear matrix attachment sites(21197). The Nuclear Matrix Anchorage site in the 3' end of the human apoB gene was seen to contain an A/T rich hypervariable region(HVR) which in Fig.3 can be seen to comprise a MAR molecule of at least about 300 nucleotides, said MAR having a sequence which is a contiguous fragment of said DNA molecule sequence and which encompasses said identified sequence section of at least twenty contiguous nucleotides that is at least 90% A or T nucleotides.(Pg. 21199, Fig.3)

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2. Claims 20 and 21 are further rejected under 35 U.S.C. 102(e) as being anticipated by Dietrich et al.(US Patent 6,040,185).

The reference teaches sequencing, cloning and transient assays of Matrix Associated Regions (MARS)(Example 8). Thereby, the methods of Dietrich et al. encompass identifying matrix attachment regions in a DNA molecule. The reference further teaches that the MARs typically bind reversibly to nuclear matrix or scaffold preparation. Binding is saturable, indicating binding to a limited number of specific sites. It continues to teach that while MARs can be of any size, they are generally about 1 kb or less and are AT rich. The reference teaches that MARs are believed to function in vivo as structural attachment points linking chromosomal DNA to structural elements of the nucleus(6,040,185, Column 2). More specifically, Dietrich et al. teach two fragments, MAR2 and MAR3(shown in Table 5B and 5C respectively) which are sequences of at least 300 nucleotides with nuclear matrix binding activity and have sequence sections of at least twenty contiguous nucleotides that are at least 90% A or T nucleotides(Columns 21-23).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Sally Sakelaris whose telephone number is (703) 306-0284. The examiner can normally be reached on Monday-Thursday from 7:30AM-5:00PM and Friday from 1:00PM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W.Gary Jones, can be reached on (703)308-1152. The fax number for the Technology Center is (703)305-3014 or (703)305-4242.

Any inquiry of a general nature or relating to the status of this application should be directed to Chantae Dessau whose telephone number is (703)605-1237.

Sally Sakelaris

Sally Sakelaris
2/28/03

Carla Myers
CARLA J. MYERS
PRIMARY EXAMINER